Cahoy Dec.
Ex. 9

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

IN RE: DA VINCI SURGICAL ROBOT ANTITRUST LITIGATION,	Lead Case No.: 3:21-cv-03825-VC
THIS DOCUMENT RELATES TO: ALL CASES	
SURGICAL INSTRUMENT SERVICE COMPANY, INC., Plaintiff, vs. INTUITIVE SURGICAL, INC., Defendant.	Case No. 3:21-cv-03496-VC

HIGHLY CONFIDENTIAL - ATTORNEYS EYES ONLY

REMOTE PROCEEDINGS OF THE VIDEOTAPED DEPOSITION OF
INTUTITIVE SURGICAL, INC.,
BY AND THROUGH ITS 30(B)(6) DESIGNEE,
GRANT DUQUE
TUESDAY, NOVEMBER 8, 2022

REPORTED BY NANCY J. MARTIN
CSR. NO. 9504, RMR, RPR
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Q. Sure. So there's an electronic use counter in SI instruments; is that right?

A. That's correct.

Q. And is that functionality implemented within SI instruments on the Dallas chip?

A. The information is stored on the Dallas chip.

Q. And how does the Dallas chip within an SI instrument receive power?

A. So the Dallas chip requires a hard wire electrical connection to the system, and that's when it receives its power.

There are -- the Dallas chip itself is assembled onto a PCA -- a printed circuit board, PCB, that has within it four pogo pins.

Those four pogo pins, when an instrument is installed on a system, they engage and make electro connections through the sterile adapter that connect it to the rest of the system.

Q. And through the -- through one or more of those pogo pins, does the Dallas chip of an SI instrument communicate with an SI system?

A. Can you state that one more time? I apologize.

Q. Sure. The Dallas chip of an SI instrument communicates with an SI system; correct?

A. Correct.

Q. Does it communicate with the system through one or more of those pogo pins that you were discussing?

A. Yes, it does.

Q. Does the Dallas chip communicate with any components of the SI instrument?

MS. CAHOY: Objection to form.

THE WITNESS: Can you elaborate on the question?

BY MR. VAN HOVEN:

Q. Sure. So we just confirmed that the Dallas chip of an SI instrument communicates with the SI system; right?

A. Correct.

Q. I'm wondering, does the Dallas chip actually communicate with any other components within the SI instrument?

MS. CAHOY: Objection to form.

THE WITNESS: Not that I'm aware.

BY MR. VAN HOVEN:

Q. There's a discussion of RFID in this slide. Do you see that?

A. I do see that.

Q. Was the Dallas chip of the SI instrument

replaced with an RFID chip for XI instruments?

A. Not initially. What I'm reading on this slide indicates that we -- and depicts both the Dallas chip in addition to an RFID tag.

Q. At some point, did XI instruments move purely to having an RFID chip without a Dallas chip?

A. Yes.

Q. When did that happen?

A. Apparently we're looking at the CDR stage. So this is a CDR. So certainly before FDR, which had been the next design phase review, the Dallas -- I'm guessing the Dallas chip would have been removed by then. We did not launch with the Dallas chip initially on XI.

Q. How does the -- how does the RFID chip of XI instruments receive power?

A. So the RFID chip, it's a passive device. And so it's powered when it's in proximity to an RFID -- it's powered via an antenna that's a part of its assembly, but it gets its power when it interfaces with an RFID reader.

Q. And in the case of an XI system and XI instrument, is that RFID reader located at an arm of the system?

A. The RFID reader necessarily has to be on the

Ted Walker. Who is Ted Walker?

A. Ted Walker is a long-tenured engineer, electrical engineer.

Q. The sentence that starts with Rod, it says, "Rod plans to ask Sal for a decision about whether encryption is needed."

Do you see that?

A. I do see that.

Q. Do you know, was encryption implemented on the XI RFID chip for instruments?

A. I do, and yes, there was.

Q. On the first release of the products?

A. As I'm aware, yes.

Q. Are you aware of any time when encryption was not provided on released XI instruments on the RFID tags?

A. I am not aware of any on instruments.

Q. The next sentence appears -- it says "Ted." It appears to be referring to Ted Walker; is that right?

A. "Ted said" after --

Q. Yeah.

A. That would make sense, yes.

Q. So it appears that Ted Walker said "the most important thing is to prevent people from reprocessing

Q. Do you have an understanding of what making a knockoff would be referring to in the context of an XI instrument?

A. I interpret that as making copy, copy instruments.

Q. Essentially a third party building a new instrument and passing it off as an Intuitive instrument?

A. That's my interpretation of the knockoff, yes.

Q. To your knowledge, has any third party ever made a knockoff of an XI instrument?

A. I am not aware of that happening.

Q. To your knowledge, has anyone ever made a knockoff of an SI instrument?

A. Not to my knowledge.

Q. To your knowledge, has anyone ever reset a use counter for a device to be used past its set lives for an SI instrument?

A. I'm aware of the modification that was done through those RMA instruments where they bypassed certain portions of the Dallas chip to add lives.

MR. VAN HOVEN: I'm going to load as Exhibit 267 tab 51.

(Deposition Exhibit 267 was marked for

counterfeiting. Do you see that?

A. I do.

Q. That's the -- I guess Mr. Mustufa provides a definition of "counterfeiting" here also?

A. He does.

Q. And that's a -- as we discussed for Exhibit 266, that's a situation where a third party builds a new instrument?

A. That would be my interpretation, yes.

Q. And then finds a way for that new instrument to be accepted by XI system; right?

A. That's right.

Q. And then the next sentence, do you see that Mr. Mustufa refers to, "We'd like to make both of these difficult with the security features on our tag"?

A. I see that.

Q. Do you have understanding of what it would mean to make it difficult to do reprocessing with the security features on a tag?

MS. CAHOY: Objection to form.

THE WITNESS: I know from a design intent standpoint, we want to prevent any tampering of our Dallas chip or our RFID tag because of safety concerns; that that data, if corrupted or adulterated,

can pose a safety risk to the patient.

BY MR. VAN HOVEN:

Q. And here they're not -- they're talking about reprocessing and counterfeiting; right?

A. Correct.

Q. They're not talking about corrupting data, are they?

MS. CAHOY: Objection to form.

THE WITNESS: It's not mentioned explicitly.

BY MR. VAN HOVEN:

Q. To your knowledge, has the data of an XI instrument ever been corrupted in the field?

A. Not that I'm aware.

Q. The next sentence, Mr. Mustufa refers to "Reprocessing seems the more likely threat."

Do you see that?

A. I do see that, yes.

Q. What do you understand that to be referring to?

A. In the context of this E-mail, following the two options, 1 and 2, reprocessing or counterfeiting, it seems to be identifying that the reprocessing scenario is more likely.

Q. And for SI, at least under that definition of "reprocessing," that's actually happened; right?

what a nonsafety related feature is in the context of C1?

A. I can give an example. An example would be that the instrument be of a certain color; right? It's a requirement that we need as a design input when we're doing the design, but they're not identified as having any safety mitigation or safety-critical function.

Q. And so are C1-type codes, by definition, not safety related features?

MS. CAHOY: Objection to form.

THE WITNESS: I'm defaulting to the notes here. They're not risk based requirements. They're nonsafety related. They're not identified as safety-critical risks.

BY MR. VAN HOVEN:

Q. And is that at least one reason why C1-type code failures are subject to 85 percent reliability and 85 percent confidence testing?

A. Yes.

Q. The next category is C2. And it looks like those have 90 percent reliability and -- I'm sorry. 90 percent confidence and 90 percent reliability requirements.

A. That's right.

Q. Are you able to, by comparison, describe the difference between a 90/90 requirement versus an 85/85, what that means from a testing perspective?

MS. CAHOY: Objection to form.

THE WITNESS: Can you restate the question?

BY MR. VAN HOVEN:

Q. Sure. I understand that 90 and 90 are higher numbers than 85 and 85; right?

A. Uh-huh.

Q. Generally I understand that's a more stringent safety requirement; is that right?

A. That's right.

Q. Are you able to quantify that difference between a 90/90 versus an 85/85?

MS. CAHOY: Objection to form. Outside the scope.

THE WITNESS: It can be quantified. I don't know that I can quantify it by calculation off the top of my head. But generally speaking, a 90/90 confidence and reliability is having higher confidence that the device will be 90 percent reliable. So if you have 100 units, then 90 of those will pass.

BY MR. VAN HOVEN:

Q. And what about the 90 percent confidence? What does that mean?

A. It's a term used as part of our Weibull calculation, how confident you are about that projected reliability number.

Q. That 90 out of 100 number?

A. Right. How confident -- so the 90 out of 100 is the reliability number, but how confident are you that that number is -- will be true. So having higher confidence is certainly better.

Q. Got it. So if we look at the C3, a 95 percent reliability would mean that 95 percent of the units don't fail; right?

MS. CAHOY: Objection to form. Outside the scope.

THE WITNESS: So similar to the C2, you have a -- when I was comparing the C1 to C2.

The comparison between C3 and C2 is you have higher confidence that you are going to have higher reliability. 95 percent reliability, meaning if you have 100 units, then 95 percent -- or 95 of those 100 will pass.

BY MR. VAN HOVEN:

Q. And it looks like on the far right comments, Column C2 and C3 are grouped together?

A. I see that, yes.

Q. And it states that C2 and C3 are applicable

to safety critical life test requirements; is that right?

A. That's correct.

Q. And then it says "that have additional mitigations to limit patient-user risk."

Do you have an understanding of what additional mitigations to limit user-patient risk are?

A. I do.

Q. What's that?

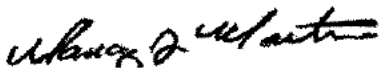
A. So if we identify something that has a safety-critical -- if there is a mitigation in place -- I can give an example. If there is a hazard that we've identified that an instrument should only be used with an accessory installed, then we've identified that as a high risk because it could pose a hazard to the patient.

One mitigation or response to having that risk factor is to add some sort of visual indicator so that it's obvious to the user that that accessory is not installed.

So that, in essence, would be a mitigation. So that would be the difference between -- so if we had a mitigation that was designed in, then that would qualify for a C2 versus a C3, where we do not have any mitigation.

C E R T I F I C A T E

I do hereby certify that the aforesaid testimony was taken before me, pursuant to notice, at the time and place indicated; that said deponent was by me duly sworn to tell the truth, the whole truth, and nothing but the truth; that the testimony of said deponent was correctly recorded in machine shorthand by me and thereafter transcribed under my supervision with computer-aided transcription; that the deposition is a true and correct record of the testimony given by the witness; and that I am neither of counsel nor kin to any party in said action, nor interested in the outcome thereof.



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Nancy J. Martin, RMR, CSR

Dated: November 17, 2022

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